

In the Claims

Please amend the claims as follows:

Claims 1-58 (cancelled)

59. (Currently amended) A genetic construct, comprising:

Q
a conditionally lethal first gene expressible in a plant cell of a plant, said conditionally lethal first gene being selected from the group consisting of a gene encoding indoleacctamide hydrolase (IAMH), a gene encoding isopentyltransferase, a gene encoding methoxinine dehydrogenase, a gene encoding rhizobitoxine synthase, and a gene encoding phosphonate monoester hydrolase; and

a second gene expressible in said plant cell, said second gene, when expressed in said plant cell, conferring a non-naturally occurring trait of interest on said plant cell, said second gene being selected from the group consisting of:

- (a) a gene which, when expressed in said plant cell, confers insect resistance on said plant cell;
- (b) a gene which, when expressed in said plant cell, confers an output trait on said plant cell;
- (c) a gene encoding an industrially useful enzyme;
- (d) a gene encoding a pharmaceutically active compound;
- (e) a gene encoding rennin or hirudin; and
- (f) a gene encoding an antisense RNA.

60. (Currently amended) The genetic construct of claim 59, wherein the second gene comprises nucleic acid which is heterologous to said plant cell is a gene which, when expressed in said plant cell, confers insect resistance on said plant cell

61. (Currently amended) The genetic construct of claim 60 59, wherein the second gene codes for a pharmaceutically active compound.

Appln. No. 09/886,207

3

62.(Currently amended) The genetic construct of claim 60 59, wherein the second gene codes for an industrially useful enzyme.

63.(Currently amended) The genetic construct of claim 60 59, wherein the second gene codes for rennin and/or or hirudin.

64.(Currently amended) The genetic construct of claim 59, whrcin the second gene, ~~when expressed, produces a measurable change in a phenotype of said plant cell.~~ is a gene which, when expressed in said plant cell, confers an output trait on said plant cell.

65.(Currently amended) The genetic construct of claim 59, wherein the second gene codes for ~~one of a protein, peptide or~~ an anti-sense RNA.

66.(Currently amnded) The genetic construct of claim 59 64, wherein the second gene codes for an input or output trait conferrable on said plant cell said output trait is selected from the group consisting of altered oil or meal composition, reduced antinutritional content, and altered processing characteristics.

67.(Currently amended) The genetic construct of claim 59, whrcin the conditionally lethal gene is an oncogene is a gene encoding IAMH.

68.(Currently amended) The genetic construct of claim 59 67, whrcin the conditionally lethal gene gene encoding IAMH is oncogene 2 from *Agrobacterium tumefaciens*.

69.(Currently amended) The genetic construct of claim 59, wherein the conditionally lethal gene is adapted to be expressed in said ~~particular~~ plant in response to a chemical or physiological stress applied to said plant cell.

70.(Currently amended) The genetic construct of claim 59, wherein the conditionally lethal gene is configured to express a gene product lethal to said ~~particular~~ plant upon application of a particular an exogenous substance to said plant cell.

71.(Cancelled)

72.(previously addcd) The genetic construct of claim 59, further comprising an inducible promoter in operable association with said conditionally lethal first gene.

Appln. No. 09/886,207

4

73.(previously added) The genetic construct of claim 59, further comprising a tissue-specific promoter in operable association with said conditionally lethal first gene.

74.(previously added) A plant transformation vector comprising the genetic construct of claim 59.

75.(cancelled)

76.(Currently amended) A transgenic plant, comprising:

P
a conditionally lethal first gene expressible in a plant cell of said transgenic plant, said conditionally lethal first gene being selected from the group consisting of a gene encoding indoleacctamide hydrolase (IAMH), a gene encoding isopentyltransferasc, a gene encoding methoxinine dehydrogenase, a gene encoding rhizobitoxine synthase, and a gene encoding phosphonate monoester hydrolase; and

a second gene expressible in said plant cell of said transgenic plant, said second gene, when expressed in said plant cell, conferring a non-naturally occurring trait of interest on said plant cell, said second gene being selected from the group consisting of:

- (a) a gene which, when expressed in said plant cell, confers insect resistance on said plant cell;
- (b) a gene which, when expressed in said plant cell, confers an output trait on said plant cell;
- (c) a gene encoding an industrially useful enzyme;
- (d) a gene encoding a pharmaceutically active compound;
- (e) a gene encoding rennin or hirudin; and
- (f) a gene encoding an antisense RNA.

77-79.(Cancelled)

Appln. No. 09/886,207

5

80.(Currently amended) A method for selectively removing at least one plant from a growing environment, comprising:

transforming at least one plant cell with a genetic construct including:

a conditionally lethal first gene expressible in said at least one plant cell, said conditionally lethal first gene being selected from the group consisting of a gene encoding indolacetamide hydrolase (IAMH), a gene encoding isopentyltransferase, a gene encoding methoxinine dehydrogenase, a gene encoding rhizobitoxine synthase, and a gene encoding phosphonate monocester hydrolase; and

a second gene expressible in said at least one plant cell, said second gene, when expressed in said at least one plant cell, conferring a non-naturally occurring trait of interest on said at least one plant cell, said second gene being selected from the group consisting of:

(a) a gene which, when expressed in said plant cell, confers insect resistance on said plant cell;

(b) a gene which, when expressed in said plant cell, confers an output trait on said plant cell;

(c) a gene encoding an industrially useful enzyme;

(d) a gene encoding a pharmaceutically active compound;

(e) a gene encoding rennin or hirudin; and

(f) a gene encoding an antisense RNA; ;

regenerating the at least one plant cell to at least one whole plant; and

applying a chemical agent to said at least one whole plant, said chemical agent being configured to be converted into a phytotoxic agent of said at least one whole plant by one or more gene products of said conditionally lethal gene.

81.(previously added) The method of claim 80, wherein said applying said chemical agent comprises applying said chemical agent in an amount selected to effect a sub-

lethal level of said phytotoxic agent in said at least one whole plant upon said conversion by said one or more gene products of said conditionally lethal gene.

82.(previously added) The method of claim 81, further comprising visually identifying a sub-lethal phenotype of said at least one whole plant.

83.(Currently amended) The method of claim 80, wherein the genetic construct comprises ~~eneogene-2~~ a gene encoding IAMH as the conditionally lethal gene, and wherein the chemical agent comprises an indoleamide or a related auxin derivative that is a substrate for IAMH.

84.(Currently amended) The method of claim 83, wherein the indoleamide chemical agent is naphthalene acetamide.

85-87.(Cancelled)

88.(Currently amended) A method for selecting a germinating seed or plant embryo comprising ~~eneogene-2~~ as a transgene, comprising:

providing at least one transgenic plant cell of a plant seed or plant embryo, said at least one transgenic plant cell including ~~eneogene-2~~ as a transgene encoding indoleacetamide hydrolase (IAMH);

culturing the at least one transgenic plant cell on a medium comprising an indolcamide or a related auxin derivative that is a substrate for IAMH; and

visually identifying the at least one transgenic plant cell by its expression of an sub-lethal auxin-overproduction phenotype.

89.(previously added) The method of claim 88, wherein said medium further comprises an auxin transport inhibitor.

90.(previously added) The method of claim 89, wherein the auxin transport inhibitor is selected from the group consisting of N-(1-naphthyl)phthalamic acid, 2,3,5-triiodobenzoic acid, 9-hydroxyfluorene-9-carboxylic acid, erythrosine, eosine, fluorescein, semicarbazone, and ethanphon.

Appln. No. 09/886,207

7

91.(Currently amended) The method of claim 88 89, wherein the indoleamide said indoleamide or related auxin derivative that is a substrate for IAMH is naphthalene acetamide and the auxin transport inhibitor is naphthylphthalamic acid.

92.(previously added) The method of claim 88, wherein the at least one plant cell comprises a seed or a plant embryo.

93-95.(Cancelled)

96.(previously added) The method of claim 88, further comprising transferring the at least one transgenic plant cell to a second medium free from indoleamide and recovering the at least one transgenic plant cell.

97.(previously added) The method of claim 96, wherein the second medium comprises naphthalene acetic acid.

98.(Currently amended) The method of claim 88, further comprising transforming at least one plant cell with oncogene 2 of Agrobacterium tumefaciens to obtain said at least one transgenic plant cell.

99.(Currently amended) A method for producing a transgenic plant comprising ~~eneogene 2~~ as a transgene encoding indoleacetamide hydrolase (IAMH), comprising:

providing at least one transgenic plant cell of a plant seed or plant embryo, said at least one transgenic plant cell including ~~eneogene 2~~ as a transgene encoding IAMH;

culturing the at least one transgenic plant cell on a medium comprising naphthalene acetamide and an auxin transport inhibitor;

visually identifying the at least one transgenic plant cell by its expression of ~~an~~ a sub-lethal auxin-overproduction phenotype; and

transferring the at least one transgenic plant cell to a second medium comprising naphthalene acetic acid to recover the at least one transgenic plant cell.

100.(New) The transgenic plant of claim 76, wherein the second gene is a gene which, when expressed in said plant cell, confers insect resistance on said plant cell.

Appln. No. 09/886,207

8

101.(New) The transgenic plant of claim 76, wherein the second gene codes for a pharmaceutically active compound.

102.(New) The transgenic plant of claim 76, wherein the second gene codes for an industrially useful enzyme.

103.(New) The transgenic plant of claim 76, wherein the second gene codes for rennin or hirudin.

104.(New) The transgenic plant of claim 76, wherein the second gene is a gene which, when expressed in said plant cell, confers an output trait on said plant cell.

105.(New) The transgenic plant of claim 76, wherein the second gene codes for an anti-sense RNA.

106.(New) The transgenic plant of claim 76, wherein said output trait is selected from the group consisting of altered oil or meal composition, reduced antinutritional content, and altered processing characteristics.

107.(New) The transgenic plant of claim 76, wherein the conditionally lethal gene is a gene encoding IAMH.

108.(New) The transgenic plant of claim 76, wherein the gene encoding IAMH is oncogene 2 from *Agrobacterium tumefaciens*.

109.(New) The transgenic plant of claim 76, wherein the conditionally lethal gene is adapted to be expressed in said plant in response to a chemical or physiological stress applied to said plant.

110.(New) The transgenic plant of claim 76, wherein the conditionally lethal gene is configured to express a gene product lethal to said plant upon application of an exogenous substance to said plant cell.